

# ARVO 2012

Translational Research: Seeing the Possibilities

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## Prognostic Standard In Grown Factors Teraphy

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### *Abstract:*

**Purpose:** The purposes of this study is to understand a suitable prognosis criteria about grown factors therapy obtained by adipocities subscleral implant (ILS).

The basic theory of the intervention is based on the attitude of orbital adipocytes to produce grown factors. It was already demonstrated that this leads to a favorable evolution than the natural history of retinal atrophic diseases (ARVO 2011).

**Methods:** Retrospectively we considered 22 patients, 31 eyes, suffering from atrophic pathologies of retinal cells undergone to ILS.

All patients were followed for one years, during which they have took antiapoptotic supplements and were subjected to visual training.

For each eye was evaluated BCVA (Snellen), residual visual acuity for near (pts) and sensitivity to microperimetry (dB). The measurements were recorded at T0, T30, T90, T360.

We divided the patients into three groups based on the value of retinal sensitivity.

A) less than 3dB: 10 eyes

B) range between 3 and 10dB:13 eyes

C) greater than 10dB: 9 eyes

**Results:** In Group A BCVA and Pts improves in the first 6 months followed by a tendency to return to their initial values.

In Group B we have a growing improvement, up to one year after treatment, while in Group C we observe a stable functional values.

The probably explanation of the different evolution is due to the different conditions of retinal integrity at the time of the implant of the grown factors.

Higher is the impairment of the retina, smaller and of shorter duration will be the functional recovery.

If the retinal impairment is moderate, grown factors could improve the cell restoring the visual function.

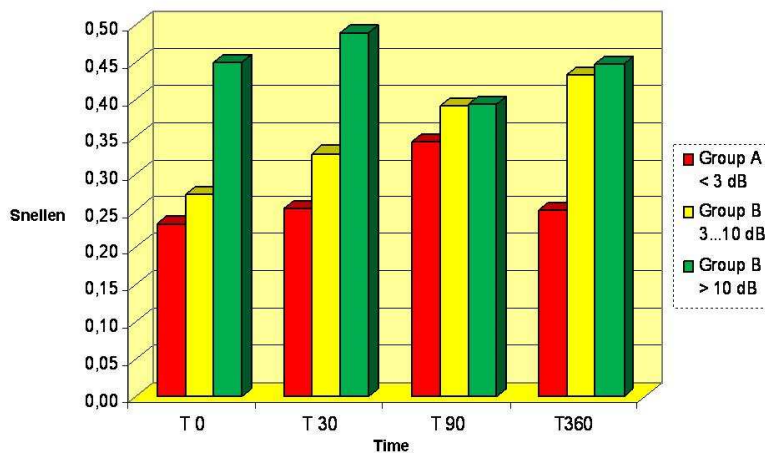
A retinal in good condition benefits of grown factors through the reduction of apoptosis and the consequent stabilization of visual performance.

**Conclusions:** The retinal sensitivity can show the prognosis of grown factors implant.

Based on the value of decibels we can know beforehand the extent of improvement and its duration.

The worsening of the visual conditions could be considered as a parameter for any further administration of grown factors in order to contain apoptotic retinal activity over time.

## Trends in BCVA related to the initial retinal sensitivity



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